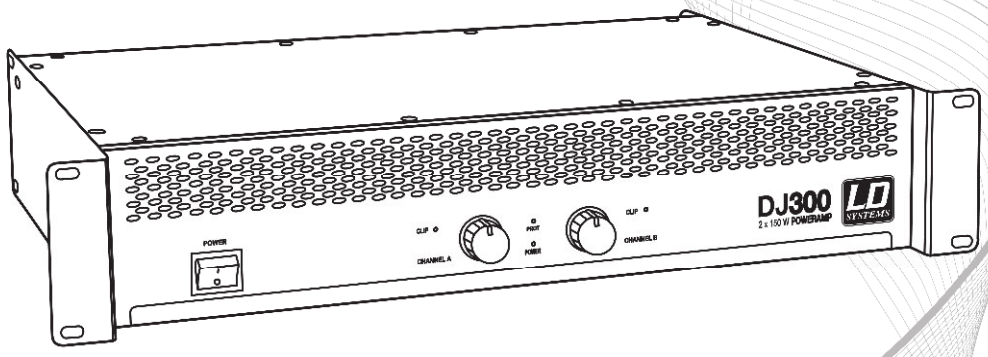
USER´S MANUAL
BEDIENUNGSANLEITUNG
MANUEL D`UTILISATION
MANUAL DE USUARIO
INSTRUKCJA OBSŁUGI
MANUALE D' USO




# LD **DJ** SERIES

**PA** POWER AMPLIFIER

LDDJ**300** / LDDJ**500** / LDDJ**800**

## Thank you for choosing LD Systems!

We have designed this product to operate reliably over many years. Therefore LD Systems guarantees for high quality products with its name and many years of experience as a producer.

Please take a few moments to read these instructions carefully, as we want you to enjoy your new LD Systems products quickly and to the fullest.

For information about LD Systems check out our website WWW.**LD-SYSTEMS**.COM

## Introduction

With the models of its DJ series, which represent a new design from the ground up, LD Systems is unveiling three straightforward power amps with absolutely impressive operational reliability, rugged construction, and outstanding value for money. The compact lightweights in 2HU rack format have output ratings of 150W to 400W with a 4-ohm load per channel and can be used flexibly in all mobile applications and permanent installations. This makes them an outstanding choice not only for DJs.

The DJ300, DJ500, and DJ800 model variants with the time-tested Class AB design have a frequency range of 20Hz-20kHz with high dynamics and impulse fidelity. They incorporate a thoroughly professional set of features: the inputs are XLR and stereo TRS sockets that accept both balanced and unbalanced signals. Speakers can be connected via Speakon-compatible outputs and sturdy screw terminals that also accept banana plugs.

The LD Systems DJ power amps are protected against short circuiting, DC, overheating, and overloading, and have a power-on delay. A low-noise fan keeps them cool. LEDs on the front panel between the easy-grip level controls clearly indicate power, clipping, activation of the protection circuit with various colours. The mains fuse is integrated in the IEC socket. The features of the DJ series are rounded out by recessed switches for bridge mode and ground lift to eliminate ground loop hum.

# LD **DJ** SERIES

**PA** POWER AMPLIFIER

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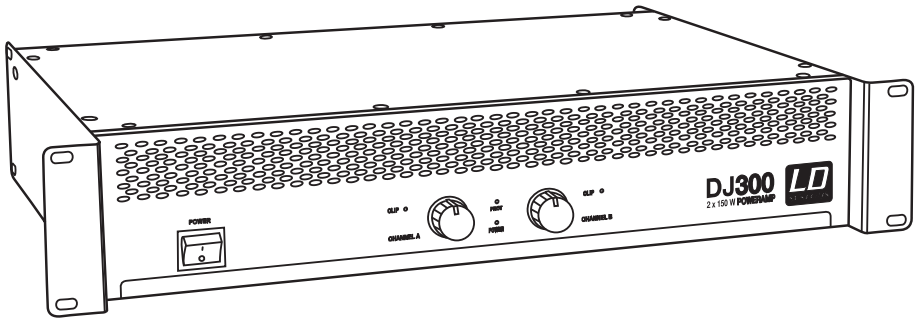


ENGLISH

DEUTSCH

FRANCAIS

ESPAÑOL

POLSKI

ITALIANO

## **PREVENTIVE** MEASURES:

ENGLISH
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FRANCAIS
ESPAÑOL
POLSKI
ITALIANO

1. Please read this information carefully.
2. Keep all information and instructions in a safe place.
3. Please follow the instructions.
4. Please observe all warnings. Don't remove safety instructions or any other information located on the device.
5. Use the device only in the intended manner.
6. Use only stable and appropriate stands and/or mounts when the device is permanently installed. Make certain that wall brackets are firmly secured. Make certain that the unit is installed securely and cannot fall down.
7. When installing please observe the corresponding safety standards for your country.
8. Do not install the device near radiators, heat accumulators, ovens or other sources of heat. Make certain that the device is always installed so that is cooled sufficiently and cannot overheat.
9. Do not place open sources of ignition, e.g., burning candles, on the device.
10. Do not cover ventilation slots.
11. Do not operate the device in the immediate vicinity of water. Do not expose this equipment to combustible materials, liquids or gases.
12. Please make certain that dripping or splashing water cannot get inside the device. Do not put objects filled with fluids, such as vases or drinking vessels, on top of the device.
13. Make certain that objects cannot fall into the device.
14. Use the device only with accessories with which the manufacturer intends the device to be used.
15. CAUTION: If this device has a mains connector equipped with protective earth, it must be connected to a mains socket with a protective ground connection. Never disable the function of the protective ground connection of the included power cord.
16. Do not turn on the device immediately if it was exposed to strong temperature fluctuations (for example after transportation). Moisture and condensation may damage the device. Leave the device switched off until it has reached room temperature.
17. Do not open the device and do not make any changes to the device.
18. Before connecting to mains power, make certain that the mains voltage and the mains frequency are the same as the operating values of the device (see type label). If the device is equipped with a supply voltage selector switch, make certain that the values of the device match the values of the mains power before connecting. If the plug on the included cord does not fit your mains outlet, contact your electrician.
19. Make certain that the power cord is not stepped on. Protect the power cord against pinching, especially at the device plug and the power plug.
20. In order to prevent damage or accidents, for example, due to tripping hazards, check all connections once you have connected the device.
21. When connecting the device, make certain that the power plug remains readily accessible.
Always pull out the power plug when the device is not in use or when you clean the device. Disconnect the power cord by pulling the plug not the cable. Never touch the power cable and power adapter with wet hands.
22. Avoid switching the device on and off at short intervals, because it may shorten the durability of the device.
23. IMPORTANT: Replace fuse only by fuse of same type and rating! If fuse blows repeatedly please contact authorized service center!
24. In order to disconnect the device completely from the mains voltage, the power plug must be unplugged.
25. If your device is equipped with a Volex power connector, the matching Volex device plug must be unlocked in order to disconnect it. This also means that a tug on the power cord can pull the device out of place, thus causing personal injuries and/or property damage. Thus please make certain to route your cables carefully.

## **PREVENTIVE** MEASURES:



26. If there is a risk of lightning strike or during extended periods of disuse, unplug the power plug.
27. During transport, make certain that the equipment being transported cannot fall down and possibly cause personal injuries and/or property damage.
28. If your device no longer works properly, if it has been exposed to liquids or an object has fallen inside it or if it has been damaged in some other manner, turn the device off immediately und unplug the power plug. This device should be repaired only by authorized experts.
29. Use only a dry cloth to clean the device.
30. Comply with all of the disposal laws that are applicable in your country. During disposal, please separate plastic and paper/cardboard.
31. Plastic bags must be kept out of the reach of children.

**CAUTION:**

To reduce the risk of electric shock, do not remove cover (or back). No user serviceable parts inside. Refer servicing to qualified personnel.

The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product´s enclosure that may be of sufficient magnitude to constitute a risk to persons.

The exclamation mark within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

**CAUTION! HIGH VOLUME!**

This product is designed for professional use. Therefore the commercial use of this equipment is liable to the rules and regulations of the Accident Prevention & Insurance Association of your industry sector. Adam Hall as a manufacturer is bound to inform you formally about the existence of eventual sanitary risks.
Risk of hearing damage due to prolonged exposure to excessive volumes: When using this product high sound pressure levels (SPL) can be generated, sufficient to cause permanent hearing damage to performers, production crew and audience members. Caution should be taken to avoid prolonged exposure SPL in excess of 90 dB.

# PREVENTIVE MEASURES:



**DANGER AT THE SPEAKER OUTPUT!**

Power amplifiers are capable of producing dangerously high voltages at the output. To avoid electrical shock, never touch bare speaker wires or terminal posts while the power amplifier is in operation.

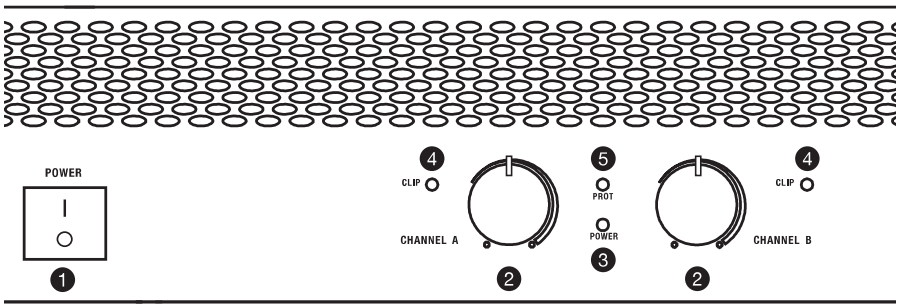
**INSTALLATION AND CONNECTION**

For trouble-free operation, during setup and rack installation, make certain that the air intake and ventilation of the power amplifier is not hampered (ventilation slits on the front panel, fan on the rear panel).

We recommend the use of high-quality balanced cables(with two conductors for the audio signal plus separate shielding mesh) with XLR-type connectors for connecting the signal source (e.g., mixing desk) to the power amplifier. While it is also possible to connect unbalanced cables to the power amplifier inputs, for reasons of interference immunity, using balanced cables is always preferable.
In order to reduce power losses, speakers should always be connected using twinaxial speaker cable with a sufficiently large cross-section.

# **FRONT** / CONTROLS:






**1 POWER SWITCH**

Always turn the volume down to zero on both channels before turning the amplifier on and off (knobs all the way to the left).

**2 VOLUME CONTROLS CHANNEL A AND B**

Turning the knob to the right increases and turning it to the left decreases the volume.
In bridge mode (BTL), the volume of the power amplifier is controlled by the volume control for Channel A.

**3 POWER LED**

Lights up if the speaker system is switched on and properly connected to the power mains.

**4 CLIP LED CHANNEL A AND B**

Lights up if the power amplifier is operating in the clipping range. This should be avoided by reducing the input level, because otherwise distortion may result which can both have a negative effect on the resulting sound and cause damage to the connected speakers.

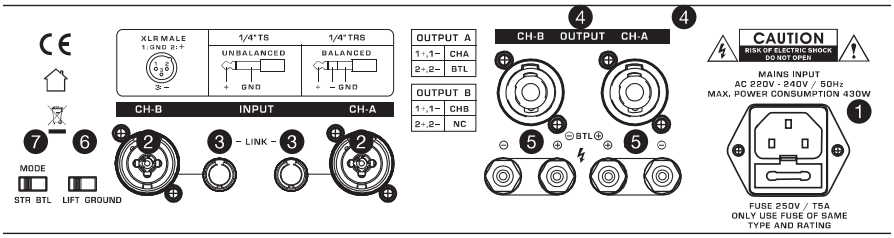
**5 PROTECT LED**

Lights up after power-on as long as the power-on delay is active. After the Protect LED goes out, the power amplifier is ready for operation.
The Protect LED lights up when one of the power amplifier protection circuits is active. To protect the power amplifiers and the connected speakers, the speaker outputs are deactivated in protect mode. Once the source of the trouble has been eliminated (e.g., overloading or a short circuit at the speaker output), after a short time, the power amplifier returns to normal status, the Protect LED goes out, and the speaker outputs are reactivated.
If the Protect LED does not go out after a short time even if all inputs and outputs have been disconnected, there is an internal fault. In this case, turn off the power amplifier, disconnect it from the power mains, and hand it over to an authorised service centre.

# REAR PANEL / CONNECTORS & CONTROLS:



**PICTURED:** LDDJ300




**1 POWER CONNECTOR WITH FUSE HOLDER**

Always make certain that the operating voltage of the power amplifier (printed on the rear panel of the power amplifier) matches the mains voltage in your region. An appropriate mains cord is included in the package. Always disconnect the power amplifier from the mains power during installation.
IMPORTANT INFORMATION: Always replace the fuse only with a fuse of the same type with the same rating (printed on the rear panel of the power amplifier). If the fuse blows repeatedly, please contact an authorised service centre.

**2 BALANCED XLR-INPUT CHANNEL A AND B**

The XLR input sockets are used to connect to a mixing desk or another signal source.
In bridge mode BTL (bridge tied load), Channel A must be used as the input.

**3 BALANCED JACK INPUT / LINK OUPUT**

These 6.3 mm TRS sockets can be used as an audio input or to loop through the signals from the XLR input sockets. Unbalanced instrument cables can also be used, but when looping through the signal with unbalanced instrument cables, it is important to remember that this automatically makes the input signal of the power amplifier unbalanced.

**4 SPEAKON-COMPATIBLE SPEAKER OUTPUTS CHANNEL A AND B**

Connection of speakers or speaker systems with a total impedance of at least 4 ohms per channel.
In bridge mode BTL (bridge tied load), the Channel A output socket must be used, whereby it must be ensured that pin 2+ and 2- of the Speakon-compatible sockets are used.
IMPORTANT: In bridge mode, the total impedance of the connected speaker system must not be less than 8 ohms.

## **REAR PANEL** / CONNECTORS & CONTROLS:



**❺ SPEAKER TERMINAL CLAMPS CHANNEL A AND B**

Connection of speakers or speaker systems with a total impedance of at least 4 ohms per channel.
Connect the positive pole (+) of the speaker cable to the red terminal clamp (+) and the negative pole (-) of the speaker cable to the black terminal clamp (-) of the respective channel. Optionally, speaker cables with banana plugs can also be used.
In bridge mode BTL (bridge tied load), the red Channel A terminal clamp must used as the positive pole (+) and the red Channel B terminal clamp must be used as the negative pole (-).
IMPORTANT: In bridge mode, the total impedance of the connected speaker system must not be less than 8 ohms.

**❻ GROUND-LIFT SWITCH**

Used to avoid ground loops. In LIFT position, the connection between the housing and the signal ground is interrupted.

**❼ MODE SWITCH**

In STR position (stereo mode), output stages A and B operate independently. Both stereo signals and entirely different signals can be amplified via Channel A and B.
In BTL position (bridge mode), output stages A and B are connected to a more powerful mono output stage.
IMPORTANT: In bridge mode, the total impedance of the connected speaker system must not be less than 8 ohms.

# CONNECTOR PIN ASSIGNMENTS:

ENGLISH
DEUTSCH
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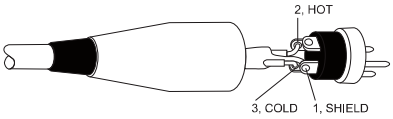
ITALIANO

### XLR-TYPE CONNECTOR PIN ASSIGNMENTS

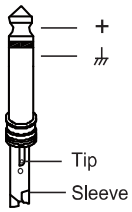
XLR (male)



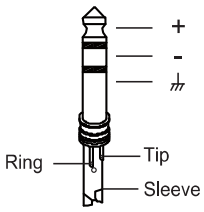

XLR (female)

### TRS CONNECTOR PIN ASSIGNMENTS

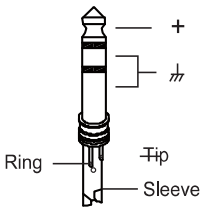
**UNBALANCED**




**BALANCED**

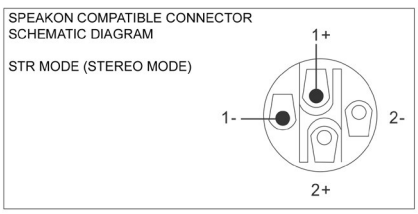



**UNBALANCED**

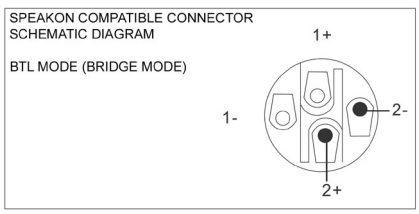



### SPEAKON-COMPATIBLE CONNECTOR PIN ASSIGNMENTS

**STR POSITION (STEREO MODE)**

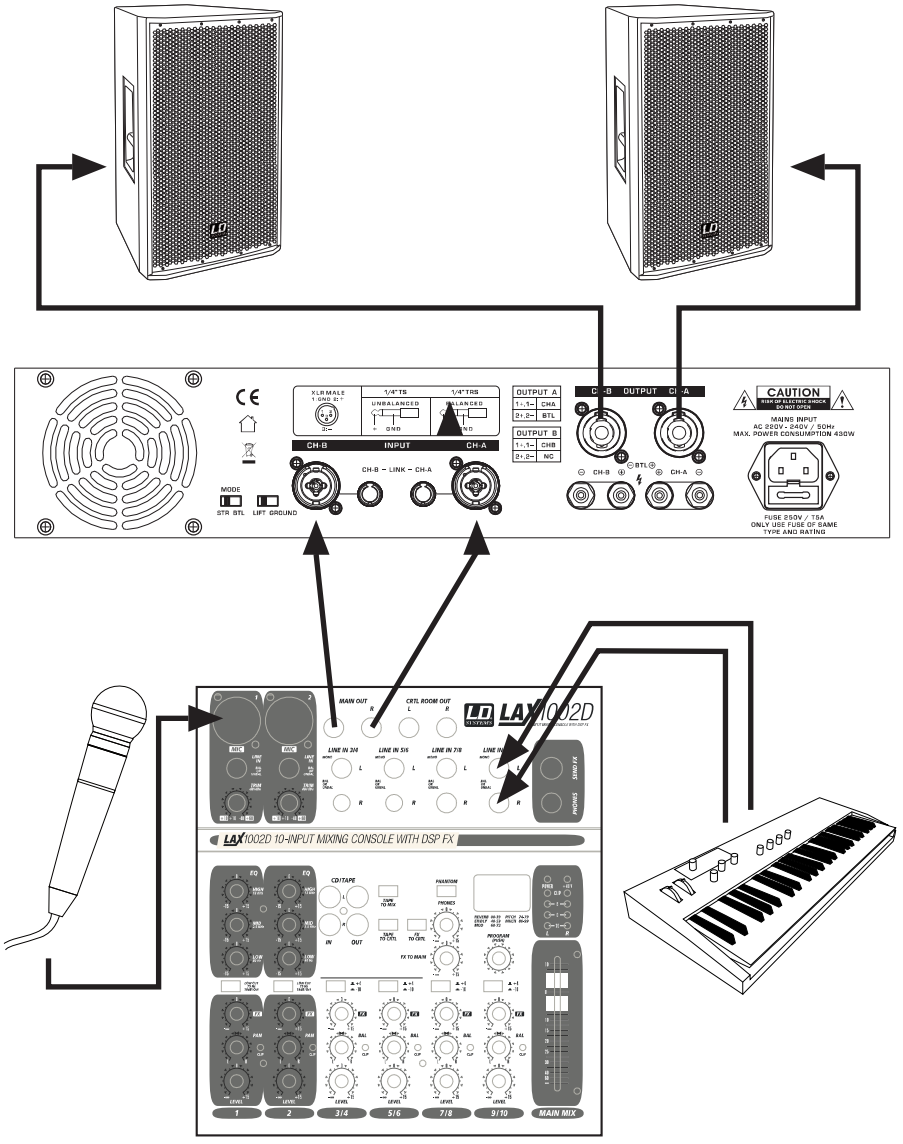



**BTL POSITION (BRIDGE MODE)**



## **WIRING** EXAMPLE:





# SPECIFICATIONS:

| | | LDDJ300 | LDDJ500 | LDDJ800 |
|---|---|---|---|---|
| Product type: | | Power amplifier | | |
| Type: | | 2-channel | | |
| Output power (1 kHz @ 4 ohms): | W | 2 x 150 | 2 x 250 | 2 x 400 |
| Output power (1 kHz @ 8 ohms): | W | 2 x 100 | 2 x 150 | 2 x 240 |
| Output power (1 kHz @ 8 ohms, bridged mode): | W | 250 | 500 | 800 |
| Circuit concept: | | Class A/B | | |
| Frequency response: | Hz | 20 - 20.000 | | |
| THD: | | 0,03% | 0,04% | 0,04% |
| S/N ratio: | dB | 74 | 88 | 98 |
| Crosstalk: | dB | 70 | 71 | 72 |
| Voltage gain: | dB | 28 | 30 | 32 |
| Input sensitivity: | V | 1 | 1 | 1 |
| Input impedance: | kOhms | 32 | 32 | 32 |
| Protection: | | DC, overheating, short-circuit, overcurrent, power-on delay | | |
| Controls: | | Power switch, Channel A volume, Channel B volume, ground lift, bridge / stereo mode | | |
| Indicators: | | Power, Clip A, Clip B, Protect | | |
| Line in- / outputs: | | 2 x XLR, 2 x 6.3 mm jack | | |
| Speaker outputs: | | 2 x Speakon-compatible, 2 x terminal posts | | |
| Cooling system: | | low-noise fan | | |
| Power supply: | | transformer | | |
| Operating voltage: | V | 220 - 240 V AC, 50 Hz | | |
| Power consumption (at full load): | W | 430 | 690 | 1100 |
| Dimensions (W x H x D): | mm | 482 x 88 x 298 | | |
| Weight: | kg | 8,5 | 9 | 10,1 |
| Accessories included in package: | | power cable, user manual | | |

# MANUFACTURER´S DECLARATIONS:



## LIMITED WARRANTY

This Limited Warranty applies to the Adam Hall, LD Systems, Defender, Palmer, Cameo and Eminence branded products.

The statutory warranty rights towards the seller are not affected by this guarantee. In fact, it justifies, additional independent warranty claims towards Adam Hall.

Adam Hall warrants that the Adam Hall product you have purchased from Adam Hall or from an Adam Hall authorized reseller is free from defects in materials or workmanship under normal use for a period of 2 or 3 years from the date of purchase.

The Limited Warranty Period starts on the date of purchase. In order to receive warranty services you are required to provide proof of the purchase date. Your dated sales or delivery receipt, showing the date of purchase, is your proof of the purchase date. Should products of the brands named above be in need of repair within the limited warranty period, you are entitled to warranty services according to the terms and conditions stated in this document.

This Limited Warranty extends only to the original purchaser of this Adam Hall branded product and is not transferable to anyone who obtains ownership of the Adam Hall branded product from the original purchaser. During the Limited Warranty Period, Adam Hall will repair or replace the defective component parts or the product. All component parts or hardware products removed under this Limited Warranty become the property of Adam Hall.

In the unlikely event that your Adam Hall product has a recurring failure, Adam Hall, at its discretion, may elect to provide you with a replacement unit of Adam Hall´s choice that is at least equivalent to your Adam Hall branded product in hardware performance.

Adam Hall does not warrant that the operation of this product will be uninterrupted or error-free. Adam Hall is not responsible for damage that occurs as a result of your failure to follow the instructions included with the Adam Hall branded product.

This Limited Warranty does not apply,
- to wear parts (e.g. accumulator)
- to any product from which the serial number has been removed or that has been damaged or rendered defective as the result of an accident
- in case of, misuse, abuse, or other external causes
- by operation outside the usage parameters stated in the user´s documentation shipped with the product by use of spare parts not manufactured or sold by Adam Hall
- by modification or service by anyone other than Adam Hall

These terms and conditions constitute the complete and exclusive warranty agreement between you and Adam Hall regarding the Adam Hall branded product you have purchased.

# MANUFACTURER´S DECLARATIONS:

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ITALIANO

## LIMITATION OF LIABILITY

If your Adam Hall branded hardware product fails to work as warranted above, your sole and exclusive remedy shall be repair or replacement. Adam Halls' maximum liability under this limited warranty is expressly limited to the lesser of the price you have paid for the product or the cost of repair or replacement of any hardware components that malfunction in conditions of normal use.

Adam Hall is not liable for any damages caused by the product or the failure of the product, including any lost profits or savings or special, incidental, or consequential damages. Adam Hall is not liable for any claim made by a third party or made by you for a third party.

This limitation of liability applies whether damages are sought, or claims are made, under this Limited Warranty or as a tort claim (including negligence and strict product liability), a contract claim, or any other claim. This limitation of liability cannot be waived or amended by any person. This limitation of liability will be effective even if you have advised Adam Hall of an authorized representative of Adam Hall of the possibility of any such damages. This limitation of liability however, will not apply to claims for personal injury.

This Limited Warranty gives you specific legal rights. You may also have other rights that may vary from state to state or from country to country. You are advised to consult applicable state or country laws for a full determination of your rights.

## REQUESTING WARRANTY-SERVICE

To request warranty service for the product, contact Adam Hall or the Adam Hall authorized reseller from which you purchased the product.

## EC DECLARATION OF CONFORMITY

These devices meet the essential requirements and further relevant specifications of Directives 2004/108/EC (EMC) and 2006/95/EC (LVD). For more information, see www.adamhall.com.

## CORRECT DISPOSAL OF THIS PRODUCT (ELECTRICAL WASTE)

(Applicable in the European Union and other European countries with separate collection systems)

This marking shown on the product or its literature, indicates that it should not be disposed with other household wastes at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details on where and how they can recycle this item in an enviromentally friendly manner.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes for disposal.

# MANUFACTURER´S DECLARATIONS:



## WEEE-DECLARATION

Your LD-Systems product was developed and manufactured with high quality materials and components wich can be recycled and/or reused. This symbol indicates that electrical and electronic equipment must be disposed of separately from normal waste at the end of its operational lifetime.
Please dispose of this product by bringing it to your local collection point or recycling centre for such equipment. This will help to protect the environment in which we all live.

## BATTERIES AND ACCUMULATORS

The supplied batteries or rechargeable batteries can be recycled. Please dispose of them as special waste or return them to your specialist dealer. In order to protect the environment, only dispose exhausted batteries.

## ECOLOGY AND ENERGY SAVING

Saving electric energy helps to protect the environment. Please turn off all electrical equipment when it is not in use. To avoid power consuption in idle mode, disconnect all electrical equipment from mains when not in use.

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